The January 29, 2015 Huntington Levee Community Meeting

Questions and Answers

The 100-year storm

1. If it rains for 2 days or 16 inches in 48 hours can the pumps handle the volume of water?

The levee system is designed to provide protection from the 100-year storm which is a storm that has a one percent chance of occurring in any given year. The pump station will pump up to 168 million gallons of water per day which should manage the back-to-back storm situation in this question.

The Pumps

1. How long does it take to pump out the water storage or pond area?

Following a 100-year storm, the water stored behind the levee should be pumped out in less than 4 hours.

2. Are the pumps automatic?

The pump and gate systems are automatic. County staff will manage the pump station during larger storm events to ensure the system is working properly.

3. How long are the pumps expected to last? There is concern that the pumps may not have a long life if they are not operated very often.

The pumps are expected to have a minimum 20 year life. They will be maintained regularly and will be replaced at the end of their useful life.

4. Will the pumps be used frequently?

The pumps should be activated from rainfall amounts that occur two to three times per year. The pumps will be tested once a month during their regular maintenance cycle.

5. What happens if the pumps fail?

There are four pumps. Three will operate during a 100-year storm event and the fourth will be used as a backup pump.

6. What happens if the generator fails?

The pump station will normally operate on power supplied by the electric company. The emergency generator will be used when there is no power from the utility company. A generator failure would be the result of multiple system failures. In such a situation, the regular electric power would fail before the generator is required; then the generator will start. The generator will be maintained regularly and tested to ensure operation when needed.

7. Will the emergency generator come on automatically?

The emergency generator will come on automatically during a power failure. County staff will monitor the system remotely and on site.

8. How will the emergency generator be refueled?

The generator will be powered by diesel. There will be adequate storage provided to allow the generator to operate continuously for 24 hours with all three pumps running in conjunction with other electrical demands within the pump station. The station will be refueled by tanker truck. The truck will access the pump station by Mount Vernon Drive.

9. Power to the homes is cut off when it floods. Will this still be necessary?

A community member explained that in the past the power has been cut-off to the homes as a safety measure by the electric utility. When homes experience flooding, the power may be cut off due to the concern with electrical panels or equipment being exposed to the water. The levee system will control flooding of structures, reducing the necessity for the electric utility to cut off power.

Pump Station

1. How close to the homes will the pump station be?

The design shows the closest distance from the pump house to a residence is 230 feet.

2. Is there an access road to the pump station? Where is it? What road will the trucks use to get into and out of the neighborhood?

Access to the site for construction is being evaluated.

3. Has a noise analysis been done (about the pumps)? What is the decibel level?

The pumps are inside the pump station and the motors will be under water. Both factors help contain the noise. The primary source of noise will come from the emergency generator which will operate for periodic maintenance and when electric power is not available. The design includes sound-proofing to reduce the generator noise.

4. How long will it take to build the pump station?

Construction of the entire levee system is expected to take two years (earthen levee/I-wall, pump station, drainage structures, and associated storm drainage modifications).

5. Is there any new sewer pipe being installed as part of the project?

About 85 feet of 48-inch sewer pipe will be replaced at the east end of the levee. About 410 feet of 18-inch pipe at the east end of the levee will be moved. There may be a need to seal or raise some manholes.

6. What happens if the pumps are backed-up with debris?

The pump station is designed with mechanical screening devices that will remove large debris from the stormwater flowing into the station.

Levee Storage Area or Ponding

1. How deep is the pond? (the ball field area that will hold water)

This is known as the interior storage area which will extend from the base of the levee southward to the Park Authority's property line, or about 1500 feet with a width of 170 to 250 feet. The area will store water at about a two foot depth during a 100 year storm.

2. What keeps the interior storage area clean from silt and other build-up?

The interior storage area is a part of the levee system. County staff will conduct regular maintenance to ensure the capacity remains as designed.

3. Will there be a dog park or a recreation area (passive recreation)?

The Fairfax County Park Authority is working to determine what recreational activities will be acceptable around the levee.

4. Will there be a walkway?

There will be a walking path along the top of the levee.

6. How do the outlet structures work?

There are two drainage structures through the levee that will drain the area behind the levee by gravity flow when the water level in Cameron Run is low and the pumps are not needed. Each structure will have a flap gate and a sluice gate (as a backup) to prevent water from flowing backwards from the flooded side (Cameron Run) to the protected side (the Huntington Community). When water levels are high in Cameron Run the gates will close and divert runoff from behind the levee to the pump station for discharge into Cameron Run.

7. If water rises in Cameron Run, will it ever get too high and block the discharge pipes from the pump station that are pumping out the internal drainage?

The levee system is designed to protect homes in the Huntington Community from flooding for storms up to and including the historical 100-year storm. For safety, three feet of additional levee height or “freeboard” on the Cameron Run side is included beyond the historical 100 year storm event.

8. What is freeboard? How much freeboard will there be?

Freeboard means the height of the top of the levee above the historical 100-year flood. Freeboard is a safety measure that prevents flood waters from over-topping the levee. For accreditation, FEMA requires a minimum of 3 feet of freeboard above the 100-year flood level.

9. Where does the levee start and stop?

The levee will begin at the high ground approximately 180 feet west of the end of Fenwick Drive. The levee will continue east to the parking lot behind the apartment building at 5850 Cameron Run Terrace, north of the end of Hunting Creek Road, where it will meet high ground.

10. Will the bridge on Telegraph Road be underwater?

Modeling shows that during a 100-year storm, the new bridge flood elevations downstream of Telegraph Road have been reduced by approximately six inches. If water floods the intersection of Telegraph Road and Huntington Avenue, it is unlikely to flow past Metroview Parkway.

11. Will the county do anything about the water from Telegraph Road? Will water flow around the levee and back to the Huntington neighborhood if nothing is done to protect Telegraph Rd?

Flooding at the Telegraph Road Bridge is outside the scope of this project. The voters approved a $30 million bond to protect the Huntington Community and this project addresses the scope that was approved. Additional approvals and funding would be needed to address other areas. This project provides protection from the 100-year storm, which is the same standard that is applied to the entire county.

12. How far was the flood modeling done for Cameron Run?

The modeling includes approximately 500 feet upstream of the I-95/I-495 Bridge over Cameron Run.

FEMA PROCESS

1. How long will it take to get FEMA accreditation on the levee?

Levee accreditation includes certification of the levee by a professional engineer, adopted operations and maintenance plans provided by the levee owner and additional documents. The application for accreditation occurs after the levee is constructed and certified and could take from 90 days to one year.

2. What is the CLOMR process?

A Conditional Letter of Map Revision (CLOMR) is applied for during the design process to allow FEMA to comment on a proposed project that would, upon construction, result in the modification of the existing regulatory floodplain. The CLOMR does not revise an effective

Flood Insurance Rate Map (FIRM). Rather, it indicates whether the project, if completed as proposed, would be eligible for a LOMR, a Letter of Map Revision. This conditional approval ensures the project is compliant with National Flood Insurance Program (NFIP) regulations prior to construction.

3. What is the LOMR process?

A Letter of Map Revision (LOMR) is a letter issued to communities by FEMA that revises the effective data shown on the community's Flood Insurance Rate Map (FIRM). After construction is complete, all the appropriate paperwork is submitted to FEMA for review. LOMR reviews usually take three to six months to process, are subject to an appeal period, and usually become effective within six months after they are issued.

4. When will the FEMA flood maps be changed?

A Letter of Map Revision will be issued by FEMA and will be used until the next time FEMA updates the county's Flood Insurance Rate Maps (FIRMs). Once a LOMR becomes effective, it officially changes the floodplain boundary to that shown in the LOMR.

5. Once the map is changed, do we need flood insurance?

While there is no federal mandatory insurance purchase requirement in Zone X, Fairfax County strongly recommends that Huntington residents purchase or maintain their flood insurance. It is expected that the premiums will be significantly lower.

6. What zone will the area be in after the levee is built?

After accreditation is complete and the LOMR is approved, the areas behind the levee may be within Zone X. This is an area with minimal flood risk.

7. What other permits are needed?

There are 26 local, state, federal and other permits or approvals required to construct and accredit the levee system.

8. Will swimming or playing in the interior storage area water be allowed?

People and pets should not play or swim in the interior storage area. Water levels may rise and fall quickly, causing unsafe conditions. The stormwater runoff collected in the area may contain fertilizers, chemicals, oils, trash and other debris from roads and other surfaces.

9. Will there be any protection, like a fence, around the interior storage area? Will signs be posted?

The design team will evaluate fencing and signage requirements.

10. Will you dredge if the interior storage area fills up with sediment?

The interior storage area will be regularly maintained by county staff. .

11. How long does it take to get all of the permits? When do you start the permit process?

The permit process has already begun and will continue throughout the design process. Each permit and approval was identified during the first phase of the project and has been included on the detailed project schedule.

12. Where will construction traffic access the site?

Construction access is being evaluated.

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